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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,001	08/01/2003	Walter Harvey Waddell	2003B079	8961

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EXAMINER	
RONESI, VICKEY M	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,001	WADDELL ET AL.	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/15/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. It is noted that US application no. 09/691764 cited on information disclosure statement (IDS) dated December 15, 2003 matured into US 6,710,116. Therefore, this application no. has been struck off from the IDS and the corresponding US patent has been cited on form PTO-892.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Applicant is advised that should claim 26 be found allowable, claim 44 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. In the present case, claim 44 is identical to claim 26. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7, 11, 12, 33-35, 51, 52, 59, 63, 64, 69, and 72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7, 11, 12, 33-35, 51, 52, 59, 63, 64, 69, and 72 appear to improperly recite a Markush group. Consequently, it is impossible to determine which elements of the group are required by the claims. When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper. See MPEP § 2173.05(h).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-25, 27-35, 38-43, 46-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Dias et al (WO 02/48257 A2, cited on IDS dated December 15, 2003).

Dias et al discloses a composition that can be used in the production of air barriers having an air permeability from 1.2×10^{-8} to 4×10^{-8} cm^3-cm/cm^2-s-atm at 65°C (page 58, lines 29-30) such as innerliners and innertubes (page 34, lines 5-9) comprising

- from 5 to about 100 phr (page 13, lines 5-14) of an elastomeric component such as halogenated (polyisobutylene-*co*-*p*-methylstyrene) which contains 0.1-5 wt % *p*-methylstyrene (page 54, lines 12-13) wherein the halogen is preferably bromine (page 11, lines 19-25), butyl rubber (page 6, line 10), halogenated star-branched butyl rubber, halogenated butyl rubber, and mixtures thereof (page 53, lines 10-12);

- from about 10 to about 150 phr (page 21, lines 12-13) of carbon black such as N762, N990, and Regal 85 which inherently has a surface area of less than 30 m^2/g and a dibutylphthalate oil absorption of less than 80 $cm^3/100$ g (as disclosed by present disclosure on page 25, Table 2) or carbon black such as N660 which inherently has a surface area greater than 30 m^2/g and a dibutylphthalate oil absorption of greater than 80 $cm^3/100$ g (as disclosed by present disclosure on page 25, Table 2);

- from about 1 to about 60 phr (page 21, lines 1-4) polybutene processing oil derived from olefin derived units have from 3 to 8 carbon atoms, in particular a C_4 raffinate (page 17, lines 23-29), such as those described on page 18, lines 4-21) having a viscosity ranging from 10 to 6000 cSt at 100°C (page 19, lines 2-5) and having $M_n > 400$ and $M_n < 15{,}000$ (page 17, line 25; page 18, lines 23-28);

- at least one filler such as those listed on page 21, lines 8-21;

- an exfoliated clay such as those listed on page 21, line 23 to page 22, line 2;

- a secondary elastomer such as those listed on page 13, lines 17-29;

- an engineering resin such as a polyamide and others such as those listed on page 15, lines 19-24;

- processing aids such as napthentic, aromic or paraffinic extender oils may be present or substantially absent (page 23, line 29 to page 24, line 4); and

- at least one curing agent (page 25, lines 11-15).

The above composition is mixed together and cured (page 25, line 17 to page 28, line 3).

In light of the above, it is clear that Dias et al anticipates the presently cited claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 26, 36, 37, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dias (WO 02/48257, cited on IDS dated December 15, 2003) in view of Kay (EP 0 376 558, cited on IDS dated December 15, 2003).

Dias et al discloses a curable composition comprising an elastomeric component, carbon black, polybutene processing oil, and a polyamide; however, it does not disclose a method by which the composition is cured.

Kay teaches that dynamic vulcanization is a vulcanization process for rubber-containing thermoplastic compositions having advantages with respect to processability (page 5, lines 6-14). Particular attention is drawn to page 5, lines 49-51, which also teaches that containers (i.e., products) made from the dynamically vulcanized compositions of Kay have a desirable balance of properties.

In view of the clear-cut motivation provided by Kay regarding the advantages of dynamic vulcanization, it would have been obvious to one of ordinary skill in the art to dynamically vulcanize the rubber-containing thermoplastic composition of Dias et al and thereby arrive at the presently cited claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Two obviousness double patenting rejections are set forth below.

Double Patenting, I

7. Claims 14 and 39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,626,219 in view of Dias et al (WO 02/48257, cited on IDS dated December 15, 2003).

US '219 discloses an inner tube comprising a butyl rubber, a halogenated isobutylene-co-paramethylstyrene polymer, and a reinforcing filler.

US '219 does not claim a specific reinforcing filler.

Dias et al teaches that carbon blacks useful in innertubes include N990 and Regal 85, carbon blacks which intrinsically have a surface area of less than 30 m^2/g and a dibutylphthalate oil absorption of less than 80 $cm^3/100$ g (as disclosed by the present disclosure on page 25, Table 2).

Since Dias et al teaches the usefulness of particular carbon blacks in innertubes and given that US '219 is open to any reinforcing filler, it would have been obvious to one of ordinary skill in the art to utilize a carbon black and thereby arrive at the presently cited claims.

8. Claims 14 and 39 are directed to an invention not patentably distinct from claim 1 of commonly assigned U.S. Patent No. 6,626,219. Specifically, see the rejection set forth in paragraph 7 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned U.S. Patent No. 6,626,219, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly

assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

9. Claims 14 and 39 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,626,219 in view of Dias et al (WO 02/48257, cited on IDS dated December 15, 2003). See the rejection set forth in paragraph 7 above

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Double Patenting, II

10. Claims 1-4, 7, 9, 11, 22-24, 58, 61, and 63 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6, 7, 17, 18, 28, and 29 of copending Application No. 10/398,301 (published as US 2004/0087704 A1) in view of Dias et al (WO 02/48257, cited on IDS dated December 15, 2003). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

Application '301, like the present claims, discloses a composition that can be used in an air barrier comprising a butyl rubber, a filler such as carbon black, and a polybutene processing oil having M_n greater than 400.

Application '301 does not disclose a specific carbon black as presently claimed.

Dias et al teaches that carbon blacks useful in innerliners and innertubes include N990 and Regal 85, carbon blacks which intrinsically have a surface area of less than 30 m^2/g and a dibutylphthalate oil absorption of less than 80 $cm^3/100$ g (as disclosed by the present disclosure on page 25, Table 2).

Since Dias et al teaches the usefulness of particular carbon blacks in innertubes and given that Application '301 is open to any carbon black, it would have been obvious to one of ordinary skill in the art to utilize the carbon black as taught by Dias et al and thereby arrive at the presently cited claims.

Correspondence

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

vr
October 30, 2004

Vasu Jagannathan
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